REMARKS

Claims 1-17 and 20-29 are pending in the application. Claims 1-3, 9-12, and 20-27 are currently amended. Claims 18 and 19 are canceled. No new matter is introduced.

The Examiner rejected claims 1-4, 6, 7, 9, 10-13, 15, 16, 20-22, 26 and 27 under 35 U.S.C. Section 102(e) as anticipated by Reshef (U.S. Patent No. 6,529,559). The Examiner rejected claims 5 and 14 under 35 U.S.C. Section 103(a) as obvious over Reshef in view of Ojard et al. (U.S. Patent No. 6,826,242). The Examiner rejected claims 8 and 17 as obvious over Reshef. The Examiner rejected Claims 23-25 as obvious over Reshef in view of Gu (U.S. Patent Application Publication No. 2002/0085651). The Examiner rejected claims 28 and 29 as obvious over Reshef in view of Mills et al. (U.S. Patent Application Publication No. 2003/0138065). The Examiner's rejections are respectfully traversed.

Independent claim 1, as amended, recites, "[a] method comprising: demodulating the data signal to determine a hard value of each symbol; mapping the hard value of each of the symbols to a plurality of data bits, each data bit having an assigned confidence value based on a mapping table defining for each symbol hard value a plurality of data bits each having an assigned confidence value; and effecting convolutional decoding of a bit stream associated with the assigned confidence values." Reshef does not disclose or otherwise anticipate or render obvious the recited mapping table. Instead, Reshef discloses a table of symbol competitors. In table 1 of Reshef, a competitor symbol is defined for each bit of each symbol hard decision, but the table contains no confidence values for the bits. In Reshef, the soft symbol generator 84 uses the symbol competitors 98 and decision information 90, or more specifically, a noise estimate 92, to calculate soft symbol decisions for only the symbol competitors to the particular symbol hard decision. The Examiner does not contend that Ojard, Gu or Mills supply the missing teaching. Accordingly, claim 1 is not anticipated or rendered obvious by Reshef, considered alone or in combination with Ojard, Gu and Mills. Claims 2-8, 20 and 24 depend from claim 1 and are allowable at least by virtue of their dependencies, as well as because of the novel and non-obvious combinations claimed therein.

Independent claim 9, as amended, recites, "mapping the hard value of each of the symbols to a plurality of data bits, each data bit having an assigned confidence value based on a

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mapping table defining for each symbol hard value a plurality of data bits each having an assigned confidence value." As discussed above, Reshef, considered alone or in combination with Ojard, Gu and Mills, does not disclose or render obvious the recited "mapping table defining for each symbol hard value a plurality of data bits each having an assigned confidence value." Accordingly, claim 9 is allowable over the cited references. Claims 22 and 23 depend from claim 9 and are allowable at least by virtue of their dependencies, as well as because of the novel and non-obvious combinations claimed therein.

Independent claim 10, as amended, recites, "mapping means for mapping the hard value of each symbol to a plurality of bits, each bit having an assigned confidence value based on a mapping table defining for each symbol hard value a plurality of data bits each having an assigned confidence value." As discussed above, Reshef, considered alone or in combination with Ojard, Gu and Mills, does not disclose or render obvious the recited "mapping table defining for each symbol hard value a plurality of data bits each having an assigned confidence value." Accordingly, claim 10 is allowable over the cited references. Claims 11-17, 21 and 25 depend from claim 10 and are allowable at least by virtue of their dependencies, as well as because of the novel and non-obvious combinations claimed therein.

Independent claim 26, as amended, recites, "a symbol mapper configured to map the hard value of each symbol to a respective plurality of bits each having a confidence value based on a mapping table defining for each symbol hard value a plurality of data bits each having an assigned confidence value." As discussed above, Reshef, considered alone or in combination with Ojard, Gu and Mills, does not disclose or render obvious the recited "mapping table defining for each symbol hard value a plurality of data bits each having an assigned confidence value." Accordingly, claim 26 is allowable over the cited references. Claims 27-29 depend from claim 26 and are allowable at least by virtue of their dependencies, as well as because of the novel and non-obvious combinations claimed therein.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

All of the claims remaining in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited. If the Examiner

disagrees or has concerns regarding informalities, a telephone conference with the undersigned attorney is respectfully requested.

Respectfully submitted,

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